dadurch gekennzeichnet, dass beim Betätigen des Stellgliedes (8) das Fördervolumen der Verdrängerpumpe (1) verringert wird.

9. Verfahren nach einem der vorhergehenden Ansprüche, dadurch gekennzeichnet, dass bei Ausfall der Steuerungskette oder eines einzelnen Bauteils die Verdrängerpumpe (1) auf maximalen Volumenstrom verstellt wird.

- () Please charge my Deposit Account No. 50-1030 in the amount of US \$ 130 to cover the above fees.
- ( ) A check in the amount of US \$ is enclosed.
- () Applicant believes that this submission is timely and that no petition for an extension of time under 37 CFR 1.136(a) is required. Applicant, however, conditionally petitions for such an extension should same be necessary.
- (X) The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 50-1030. A duplicate copy of this sheet is enclosed.

Respectfully submitted,

Dr. Paul Vincent, Reg. No. 37,461

Danel Vincat

August 31, 2004

Date

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## **PATENT**

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

| Applicant:       | SCHNEIDER, Willi                 | ) Examiner: |
|------------------|----------------------------------|-------------|
| Application No.: | 10/501,531                       | ) unknown   |
| Filing Date:     | July 16, 2004                    | ) Art Unit: |
| For:             | METHOD FOR ADJUSTING A           | ) unknown   |
|                  | VOLUMETRIC FLOW-VARIABLE         | )           |
|                  | POSITIVE DISPLACEMENT PUMP IN AN | )           |
|                  | INTERNAL COMBUSTION ENGINE       | )           |

Atty. Docket No.: 2104 0070US

August 31, 2004

MAIL STOP PCT Commissioner for Patents Alexandria, VA 22313 U.S.A.

## INFORMATION DISCLOSURE STATEMENT

The undersigned herewith requests the Examiner to consider the art listed in the attached Disclosure Statement (PTO 1449) in examination of the above referenced U.S. patent application.

DE 692 14 774 T2 discloses a lubricant delivery system in which a displacement pump is driven (page 1, third paragraph) and liquid transported to a location of use (page 5, paragraph 5 to page 6 first paragraph). A characteristic value is determined using a sensor device to detect an operational state (page 6 first paragraph) and the characteristic value is transmitted to a control device (page 6 paragraphs 1 and 2 and page 7 paragraph 2). A comparison is made between the actual value and a desired value using an internal card of a lubricant controller (page 7, second paragraph). An adjustment signal is prepared (page 7 fourth paragraph and

page 8 first paragraph) and passed to an actuator (figures 6 and 8 steps P 9 to P 19). A volume flow of the displacement pump is thereby charged (figures 6 and 8 steps P 9 to P 19 as well as page 6, second paragraph). The steps are repeated until the actual value is equal to the desired value (figure 8 and 9, page 20 paragraph 4 to page 24, third paragraph). The rotational speed of the motor can constitute the characteristic value (page 11, third paragraph and page 12 first paragraph). This document further discloses a programmable card having predetermined programmable regions (page 8 third paragraph and figure 5 as well as page 8 third paragraph and figure 4).

DE 690 04 800 T2 discloses a regulated displacement pump for a lubricant circuit in a combustion engine which is suitable to avoid bypass losses (page 2 lines 13 to 22).

DE 38 40 909 A1 discloses a regulated displacement pump for a lubricant circuit in a combustion engine. An actuator is adjusted in opposition to a restoring force (column 2 lines 17 to 26).

DE 199 15 738 A1 discloses a regulated displacement pump for a lubricant circuit in a combustion engine.

DE 199 56 267 A1 discloses a regulator system for a fuel pump in which a displacement pump is driven (column 3 lines 5 to 13) and liquid is transported to a location of use (column 4 lines 11 to 21). A characteristic value is determined (column 3 lines 16 to 21 and column 4 lines 52 to 62 and transmitted to a controller (column 4 lines 45 to 62). A comparison is made between an actual value and a desired value (column 3 lines 21 to 43) and an actuating signal is prepared (column 3 lines 32 to 43). The actuating signal is transmitted to an actuator (column 6 lines 9 to 23) to change a volume flow of the displacement pump (column 6 line 56 to column 7 line 47 and figures 2A and 2B). The steps are repeated until the actual value equals

the desired value (column 7 lines 55 to 64). The characteristic value is given by a distributor strip intended pressure which is determined as a function of motor load and speed (column 4 lines 52 to 57).

This submittal is being made under 37 CFR 1.97 (b)(2). No fee is due. If any fees are necessary, please charge same to Account No. 50-1030.

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Date

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**Enclosures:** 

PTO-Form 1449 (1 page)

References which are not US Patents or Publications

| Substi                            | tute for fo | orm 14 | 149A/PTO  | Complete if Known      |                  |  |  |
|-----------------------------------|-------------|--------|-----------|------------------------|------------------|--|--|
|                                   |             |        | •         | Application Number     | 10/501,531       |  |  |
| INFO                              | RMATIO      | N D    | ISCLOSURE | Filing Date            | July 16, 2004    |  |  |
| STATEMENT BY APPLICANT            |             |        |           | First Named Inventor   | SCHNEIDER, Willi |  |  |
| -                                 |             |        |           | Group Art Unit         |                  |  |  |
| (Use as many sheets as necessary) |             |        |           | Examiner Name          |                  |  |  |
| Sheet                             | 1           | of     | 1         | Attorney Docket Number | 2104 0070US      |  |  |

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| aminer C           | ite<br>lo. | Fore<br>Offi | ign Pa<br>ce Nur | aten<br>mber | t Docu<br>Kind | ment.<br>Code | Name of Patentee of<br>Applicant of Cited<br>Document | or Date of Publication of Cited Document MM-DD-YYYY    | Pages, Columns, Lines<br>Where Relevant<br>Passages or Relevant<br>Figures Appear |
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|                    |            | DE           | 690              | 04           | 800            |               | Stangroom   | 05.05.1994   |   |
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|                    |            |              |                  |              |                |               |   |  |   |
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A. 寄言

| Examiner  | <br> | Date       |  |
|-----------|------|------------|--|
| Signature |      | Considered |  |
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